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Yun Lin

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EXAMINER

THAI, HANH B

ART UNIT

PAPER NUMBER

2163

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/692,212	Applicant(s) LIN ET AL.	
	Examiner Hanh B. Thai	Art Unit 2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed 3/2/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-22,24,25,36,39 and 40 is/are pending in the application.
 4a) Of the above claim(s) 26-35,41 and 42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-22,24,25,36,39 and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a Final Office Action in response to the amendment filed March 2, 2006. Independent claims 1, 21 and 36 have been amended. Claims 2, 23, 38 and 43 have been cancelled. Claims 26-35 and 41-42 have been withdrawn. Claims 1, 3-22, 24-25, 36-37 and 39-40 are pending in this application.

Response to Arguments

2. Applicant's arguments regarding "the offline use to those shares of the logical namespace that are involved in a period of disconnected" of claims 1, 3-22, 24-25, 36 and 39-40 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claims 1, 21 and 36 are objected to because of the following informalities:

- Applicant is reminded that the language of claims 1 and 36 differs from the language of claim 21 wherein claim 21 seems to reflect applicant's invention more clearly.
- The limitation "(e.g., server-based)" should not be in the claims 21 and 36. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1, 3-5, 7-16, 18-22, 24-25, 36-37 and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Domensikos et al. (US 6,065,043) of record in view of Murphy et al. (US 6,096,096).

Regarding claim 1, Domenikos discloses remote file system, comprising:

- One or more surrogate providers comprising at least a first surrogate provider that is a client side caching (CSC) component that selectively caches at least a subset of data from at least one online server and supports connection state transition at the directory level on a logical namespace (col.3, line 55 to col.4, line 4; col.5, line 53 to col.6, line 32, Domensikos discloses the client side cache corresponding to “surrogate provider” for caching portions of the file system); and
- one or more client computers that receive and store the subset of data to their respective local databases (col.7, lines 62-65, Domensikos).

Domensikos, however, does not explicitly disclose the offline use by the respective client computers and the offline use to those shares of the logical namespace that are involved in a period of disconnected. Murphy discloses a system for emulating on-line accessing of information in an offline environment including serving content for caching in a client side device. The offline client is configured to retrieve generated web content “web site information” over the network and to store the retrieved web content in the cache storage device (abstract; summary; col.5, line 21 to col.6, line 13, Murphy) and the offline use is limited to multiple logical paths through common files’ location or a namespace for the common files (abstract; summary; col.5, line 21 to col.6, line 13 and col.9, line 55 to col.10, line 12, Murphy). Therefore,

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the offline web content for end-user reads on the offline use by the respective client computers to facilitate a seamless operation of data retrieval across connectivity states for a user and the offline use to those shares of the logical namespace that are involved in a period of disconnected. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Domensikos to include the claimed feature as taught by Murphy because it would provide a specialized system that efficiently convey information to the end-user even if the end-user's computer is located very distantly from the system's information provider (see col.2, lines 13-29, Murphy).

Regarding claim 3, Domenikos/Murphy combination discloses the system comprising an MUP that supports the one or more surrogate providers at the directory level to handle incoming requests from a user (abstract; summary and col.13, lines 1-12, Domensikos).

Regarding claim 4, Domensikos/Murphy combination discloses the system comprising a second surrogate provider that translates a logical path into a physical path (col.11, line 53 to col.12, line 4, Domensikos)

Regarding claim 5, Domensikos/Murphy combination discloses that the second surrogate provider is a DFS component that points to at least one physical share or at least one physical server (summary and col.9, lines 49-60, Domensikos).

Regarding claim 7, Domensikos/Murphy combination discloses that data comprises file access parameters comprising at least one of object access rights and share access rights, the files access parameters corresponding to a cached tile object (col.10, lines 4-15 and col. 12, lines 51-67, Domensikos).

Regarding claim 8, Domensikos/Murphy combination discloses the CSC component caches the logical namespace of a file request such that when accessed during an offline state, the file is presented to a user as if it resides at a remote server location (col.18, lines 52-67, Domensikos).

Regarding claim 9, Domensikos/Murphy combination discloses that the CSC component maintains connection based data structures in logical namespace, the data structures comprising a server connection structure, a share mapping structure, and a per-user share mapping structure to facilitate handling at least one of create, read, and write requests (col.13, lines 19-25 and col.18, lines 52-67, Domensikos).

Regarding claim 10, Domensikos/Murphy combination discloses that the CSC component creates file based data structures and shares the data structures with one or more redirectors to facilitate handling at least one of create, read, and write requests, the one or more redirectors operatively connected to one or more network providers (col.17, lines 30-43; col.18, lines 52-67 and col.19, lines 18-35, Domensikos).

Regarding claim 11, Domensikos/Murphy combination discloses the system, wherein the first surrogate provider comprises a pre-process handler and a post-process handler which facilitates responding to any one of create, read, and write requests (col.18, lines 52-67 and col.19, lines 18-35, Domensikos).

Regarding claim 12, Domensikos/Murphy combination discloses the system, wherein the surrogate providers determine who owns a path request whereby the CSC components makes an initial determination before allowing the DFS component to examine the path to identify any DFS links (col. 15, line 60 to col.16, line 13, Domensikos).

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Regarding claim 13, Domensikos/Murphy combination discloses the system, wherein the CSC component operates cooperatively with the DFS component to determine whether DFS links are present in the path while in an online connection state (summary; col.13, lines 1-12 and col.15, line 60 to col.16, line 13, Domensikos).

Regarding claim 14, Domensikos/Murphy combination discloses the system, wherein the CSC component determines whether to cache an object tile associated with the path (col.15, line 60 to col.16, line 13, Domensikos).

Regarding claim 15, Domensikos/Murphy combination discloses the system further comprising a CSC agent pings the server to determine whether the server is online (col. 12, lines 51-67 and col.15, line 60 to col.16, line 13, Domensikos).

Regarding claim 16, Domensikos/Murphy combination discloses the system, wherein the CSC component tracking substantially all DFS links included in the logical namespace persistently to transition a connection state at a proper logical directory which facilitates minimizing a scope of offlineness to a physical share (col.15, line 60 to col.16, line 13, Domensikos).

Regarding claim 18, Domensikos/Murphy combination discloses that the client computer accesses remote tiles offline by retrieving them from their respective local databases if file access parameters are satisfied (col. 12, lines 51-67 and col.15, line 60 to col.16, line 13, Domensikos).

Regarding claim 19, Domensikos/Murphy combination discloses that the first surrogate provider keeps track of DFS links corresponding to every object, wherein the DFS links are physical shares (col.11, line 53 to col. 12, line 67 and col.15, line 60 to col.16, line 13, Domensikos).

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Regarding claim 20, Domensikos/Murphy combination discloses that the first surrogate provider determines whether the request against a specific object should be carried out offline or not, before returning to MUP, by looking at a corresponding physical share connection state (col.11, line 53 to col.12, line 4 and col.15, line 60 to col.16, line 13, Domensikos).

Regarding claims 21 and 36, Domensikos discloses a method that facilitates maintaining access to remote files during any period of disconnect from a remote location, comprising:

- providing one or more client computers, each client computer comprising a local data store (client 12, Fig.4; col.7, lines 62-65 and col.13, lines 59-65, Domensikos discloses a local file system 22 on client computer 12); and
- selectively caching one or more file objects and a logical namespace associated with the one or more file objects from at least one online server (col.3, line 55 to col.4, line 4; col.5, line 53 to col.6, line 32, Domensikos discloses the client side cache for caching portions of the file system reads on “caching one of more file objects”).

Domensikos, however, does not explicitly disclose the offline use by the respective client computers and the offline use to those shares of the logical namespace that are involved in a period of disconnected. Murphy discloses a system for emulating on-line accessing of information in an offline environment including serving content for caching in a client side device. The offline client is configured to retrieve generated web content “web site information” over the network and to store the retrieved web content in the cache storage device (abstract; summary; col.5, line 21 to col.6, line 13, Murphy) and the offline use is limited to multiple logical paths through common files’ location or a namespace for the common files (abstract;

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summary; col.5, line 21 to col.6, line 13 and col.9, line 55 to col.10, line 12, Murphy). Therefore, the offline web content for end-user reads on the offline use by the respective client computers to facilitate a seamless operation of data retrieval across connectivity states for a user and the offline use to those shares of the logical namespace that are involved in a period of disconnected. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Domensikos to include the claimed feature as taught by Murphy because it would provide a specialized system that efficiently convey information to the end-user even if the end-user's computer is located very distantly from the system's information provider (see col.2, lines 13-29, Murphy).

Regarding claims 22 and 37, Domensikos/Murphy combination discloses the method further comprising maintaining access to the one or more files cached while offline (col.5, line 21 to col.6, line 13 and col.9, line 55 to col.10, line 12, Murphy).

Regarding claim 24, Domensikos/Murphy combination discloses that, when connected to the remote Location, retrieving a file object from the local data store to mitigate bandwidth usage with respect to accessing the remote location despite being connected to the remote location (summary; col.12, lines 51-67 and col.15, line 60 to col.16, line 13, Domensikos).

Regarding claim 25, Domensikos/Murphy combination discloses the method further comprising: mapping a logical namespace to a physical namespace to facilitate keeping track of cached files and enumerating directories as files are modified or deleted locally at the client or at the remote location; and tracking connection states and version of physical shares that correspond to at least one object along a path that facilitates updating a tree connect structure in a

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continuous manner (col.11, line 53 to col.12, line 4 and col.15, line 60 to col.15, line 13, Domensikos).

Regarding claim 39, Domensikos/Murphy combination discloses the system that, when connected to the remote location, means for retrieving a file object from the local data store to mitigate bandwidth usage with respect to accessing the remote location despite being connected to the remote location (Fig.4 and corresponding text, Domensikos).

Regarding claim 40, Domensikos/Murphy combination discloses the system further comprising: means for mapping a logical namespace to a physical namespace to facilitate keeping track of cached files and enumerating directories as files are modified or deleted locally at the client or at the remote location, and means for tracking connection states and version of physical shares that correspond to at least one object along a path that facilitates updating a tree connect structure in a continuous manner (col.11, line 53 to col.12, line 4; col.15, line 60 to col.15, line 13 and col.19, lines 54-61, Domensikos).

5. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Domensikos et al. (US 6,065,043) in view of Murphy et al. (US 6,096,096) new cited and further in view of Shaw et al. (US Pub. 2002/0083148 A1) of record.

Regarding claim 6, Domensikos/Murphy combination discloses all of the claimed limitation as discussed above, except automatic caching and manual caching based at least in part upon user preferences. Shaw discloses a system and method for sender initiated caching of personalized content including the step of substantial caching based at least in part on the user preference (abstract; [0004] and [0019], Shaw). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination system of Domensikos and

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Murphy to include the claimed feature as taught by Shaw. The motivation of doing so would enhance the system's speed ([0002], Shaw).

Regarding claim 17, Domensikos/Murphy combination discloses all of the claimed limitation as discussed above, except substantial all CSC agents that it is online to mitigate latency. Shaw discloses a system and method for sender initiated caching of personalized content including the step of substantial caching based at least in part on the user preference (abstract; [0004] and [0019], Shaw). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination system of Domensikos and Murphy to include the claimed feature as taught by Shaw. The motivation of doing so would enhance the system's speed ([0002], Shaw).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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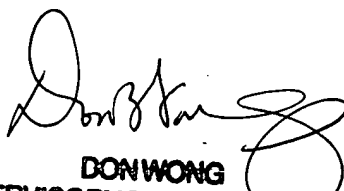
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh B. Thai whose telephone number is 571-272-4029. The examiner can normally be reached on 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh B Thai
Examiner
Art Unit 2163

May 9, 2006


DON WONG
SUPERVISORY PATENT EXAMINER